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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,491	06/12/2001	Frederick D. Busche	RSW920000174US1	5033

7590	06/24/2005

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EXAMINER
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ART UNIT	PAPER NUMBER
3622	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2005*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　　1.☐ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-43 have been examined. Application 09/879,491 has a filing date 06/12/2001.

Response to Amendment

2.   In response to Non Final Rejection filed 03/02/2005, the Applicant filed an Amendment on 04/14/2005, which amended claims 1, 8-10, 12, 15, 22-24, 26, 29, 36-39 and 41-43. Applicant's amendment overcame the 112 and 101 rejection.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 9-11, 13-21, 23-25 and 27-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menon et al (U.S. 5,537,488) in view of Glommen et al (U.S. 6,393,479).

As per claims 1, 15, 29 and 41-43, Menon teaches:

A data processing machine implemented method of selecting data sets for use with a predictive algorithm based on data network geographical information, comprising data processing machine implemented steps of:

generating a first distribution of a training data set (see column 20, lines 50-52) ;

generating a second distribution of a testing data set (see column 20, lines 60-63);

comparing the first distribution and the second distribution to identify a discrepancy between the first distribution and the second distribution (see column 20, lines 61-64);

modifying selection of entries in one or more of the training data set and the testing data set based on the discrepancy between the first distribution and the second distribution (see column 21, lines 20-24).

Menon fails to teach that said comparing is done with respect to data network geographical information. However, Glommen teaches an Internet traffic flow analysis system which monitor the travel of visitors through websites (see column 4, line 60 – column 5, line 10). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Menon would use the Glommen's Internet traffic tool to create a traffic flow testing and training data set which would predict customers travel behavior through the Internet. Advertisers would use this Internet traffic flow tool to better target advertisements to the users.

As per claims 2, 3, 5, 6, 10, 16, 17, 19, 20, 24, 30, 31, 33, 34 and 37 Menon teaches the method of claim 1, but fails to teach wherein the first distribution and the second distribution are distributions of a number of data network links from a customer data network geographical location to a web site data network geographical location. However, Glommen teaches an Internet traffic flow analysis system, which monitor the travel of visitors through websites (see column 4, line 60 – column 5, line 10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Menon would use the Glommen's Internet traffic tool to create a traffic flow testing and training data set which would predict customers travel behavior through the Internet. Advertisers would use this Internet traffic flow tool to better target advertisements to the users.

As per claims 11, 25 and 38, Menon teaches:

The method of claim 9, wherein comparing at least one of the first distribution and the second distribution to a distribution of a customer database includes:

generating a composite data set from the training data set and the testing data set; and generating a composite distribution from the composite data set (see Menon column 4, lines 1-15; column 40, lines 40-45).

As per claims 4, 18 and 32, Menon teaches:

The method of claim 1, wherein comparing the first distribution and the second distribution includes comparing one or more of a mean, mode, and standard deviation of the first distribution to one or more of a mean, mode, and standard deviation of the second distribution (see column 6, line 57 – column 7, line 20).

As per claims 7, 21 and 35, Menon teaches:

The method of claim 1, wherein modifying selection of entries in one or more of the training data set and the testing data set includes generating recommendations for improving selection of entries in one or more of the training data set and the testing data set (see column 21, lines 20-24).

As per claims 9, 23 and 36, Menon teaches:

The method of claim 1, further comprising comparing at least one of the first distribution and the second distribution to a distribution of a customer database (see column 6, line 57 – column 7, line 21) *to determine if the training data set and the testing data set are geographically representative of a customer population represented by the customer database* (see column 5, lines 35-50; "voice data from different persons (classes); According to Applicant's specification "geographically representative" does not have the same meaning as "geographic location".)

As per claims 13, 27 and 39, Menon teaches:

The method of claim 1, further comprising training a predictive algorithm using at least one of the training data set and the testing data set if the discrepancy is within a predetermined tolerance (see column 1, lines 30-35).

As per claims 14, 28 and 40, Menon teaches:

The method of claim 13, wherein the predictive algorithm is a discovery based data mining algorithm (see column 1, lines 20-40).

Claims 8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menon et al (U.S. 5,537,488) in view of Glommen et al (U.S. 6,393,479) and further in view of Malik (US 6,842,782).

As per claims 8 and 22, Menon teaches:

The method of claim 1, wherein the training data set and the testing data set are selected from a customer information database (see column 5, lines 37-55) but fails to teach *comprising information with respect to customers who have purchased any of goods and services over a data network, wherein the data network geographic*

information pertains to geographic information of the data network. However, Glommen

teaches an Internet traffic flow analysis system, which monitor the travel of visitors

through websites (see column 4, line 60 – column 5, line 10). Malik teaches a system

that keeps track of click-through purchase data (see column 19, lines 1-16). Therefore,

it would have been obvious to a person of ordinary skill in the art at the time the

application was made, to know that Menon would use the Glommen and Malik Internet

traffic tool systems to create a traffic flow testing and training data set which would

predict customers travel behavior through the Internet. Advertisers would use this

Internet traffic flow tool to better target advertisements to users.

Claims 12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Menon et al (U.S. 5,537,488) in view of Glommen et al (U.S. 6,393,479) and

further in view of Graupe (US 5,920,852).

As per claims 12 and 26, Menon teaches:

The method of claim 1, wherein modifying selection of entries in one or more of

the training data set and the testing data set (see column 2, lines 4-20) but fails to teach

includes changing one of a random selection algorithm and a seed value for the random

selection algorithm. However, Graupe teaches a system that uses a random selection

algorithm to determine the best path through a network (see column 7, lines 4-7; column

6, lines 22-30). Therefore, it would have been obvious to a person of ordinary skill in the

art at the time the application was made, to know that Menon would use the Graupe's

random selection algorithm to optimize the amount of navigation that a customer must

engage in to arrive at a particular web page. This feature would allow the Menon system to optimize the best path through a network (i.e. Internet) to obtain specific information.

Response to Arguments

4.   Applicant's arguments, filed Applicant's arguments with respect to claims 1-43 have been considered but are moot in view of the new ground(s) of rejection.

The Applicant argues that only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under Section 101. The Examiner answers that the Applicant is manipulating a set of abstract "data sets" to solve purely algorithmic problems in the abstract. A claim for manipulating "data sets" is probably even more abstract (and thereby less limited in practical application) than pure "mathematical algorithms" which the Supreme Court has held are per se nonstatutory. Therefore, the claims are impermissibly abstract under 35 U.S.C. §101 doctrine.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LASTRA whose telephone number is 571-272-6720. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ERIC W STAMBER can be reached on 571-272-6724. The Examiner's Right Fax number is 571-273-6720.
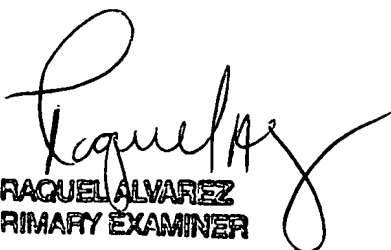
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Lastra

May 31, 2005

RAQUEL ALVAREZ
PRIMARY EXAMINER